

FCC PART 15.247 TEST REPORT

For

CLC HONG KONG LIMITED

1011A, 10/F., Harbour Centre Tower 1, No.1 Hok Cheung St., Hung Hom, Kowloon, Hong Kong

FCC ID: 2AG4WZ517

Report Type: Compass LTE

Report Number: RDG171228009-00C

Report Date: 2018-02-13

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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Dongguan).

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

	EUT Name:	Compass LTE
	EUT Model:	Z517
	FCC ID:	2AG4WZ517
Rated	Input Voltage:	DC3.8V from Battery or DC 5V from adapter
A.1	Model:	PMC43
Adapter Information	Input:	AC100-240V~ 50/60Hz 0.2A
Output:		5.0V , 1.0A
Exter	nal Dimension:	Length (14.5 cm)*Width (7.1 cm)*High (0.9 cm)
Serial Number:		171228009
EUT	Received Date:	2017.12.28

Report No.: RDG171228009-00C

Objective

This report is prepared on behalf of *CLC HONG KONG LIMITED* in accordance with Part 2, Subpart J, Part 15, Subparts A and C of the Federal Communications Commission's rules.

The tests were performed in order to determine the compliance of the EUT with FCC Rules Part 15-Subpart C, section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Related Submittal(s)/Grant(s)

FCC Part 15C DSS submissions with FCC ID: 2AG4WZ517.

FCC Part 15B JBP submissions with FCC ID: 2AG4WZ517.

FCC Part 22H, 24E, 27 PCE submissions with FCC ID: 2AG4WZ517.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices and KDB 558074 D01 DTS Meas Guidance v04.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Dongguan).

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Measurement Uncertainty

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	30M~200MHz: 4.58 dB for Horizontal, 4.59 dB for Vertical 200M~1GHz: 4.83 dB for Horizontal, 5.85 dB for Vertical 1G~6GHz: 4.45 dB, 6G~26.5GHz: 5.23 dB
Unwanted Emissions, conducted	±1.5 dB
Temperature	±1 °C
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	3.12 dB (150 kHz to 30 MHz)

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Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 897218,the FCC Designation No. : CN1220.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062D.

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SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in Engineering Mode, which was provided by the manufacturer.

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For 2.4GHz band, total 11 channels are provided:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437	/	/

For 802.11b, 802.11g, and 802.11n ht20 modes were test with channel 1,6,11. For 802.11n ht40 mode was test with channel 3,6,9.

The worst-case data rates are determined to be as follows for each mode based upon investigations by measuring the average power and PSD across all data rates bandwidths, and modulations.

For Bluetooth LE mode, 40 channels are provided for testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2442
1	2404		•••
•••	•••	•••	•••
	•••	•••	•••
		38	2478
19	2440	39	2480

EUT was tested with channel 0, 19 and 39.

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EUT Exercise Software

The software "Engineer Mode" was used for testing, which was provided by manufacturer. The maximum power was configured as below table, that provided by the manufacturer:

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Test Mode	Test Software Version		Engineering Mode	
	Test Frequency	2412MHz	2437MHz	2462MHz
802.11b	Data Rate	1Mbps	1Mbps	1Mbps
002.110	Power Level Setting	14	14	14
	Test Frequency	2412MHz	2437MHz	2462MHz
802.11g	Data Rate	6Mbps	6Mbps	6Mbps
002.11g	Power Level Setting	14	14	14
	Test Frequency	2412MHz	2437MHz	2462MHz
802.11n Data Rate		MCS0	MCS0	MCS0
ht20	Power Level Setting	14	14	14
	Test Frequency	2422MHz	2437MHz	2452MHz
802.11n	Data Rate	MCS0	MCS0	MCS0
ht40	Power Level Setting	14	14	14

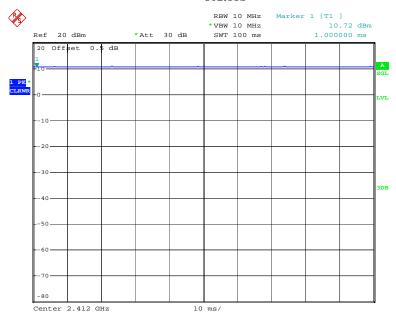
Note: BLE mode configured as maximum power by the system default setting.

The maximum duty cycle as following table:

Test mode	T _{on} (ms)	T_{on+off} (ms)	Duty Cycle (%)
802.11b	100	100	100
802.11g	1.39	1.43	97.20
802.11n ht20	0.946	0.98	96.5
802.11n ht40	0.654	0.684	95.61
BLE	0.377	0.625	60.32

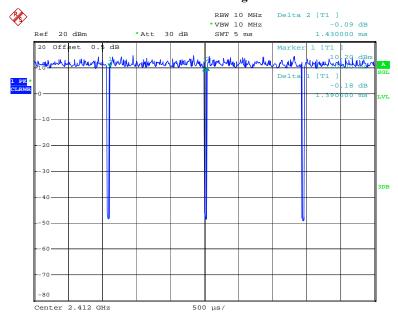
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Date: 1.JAN.2018 16:33:59

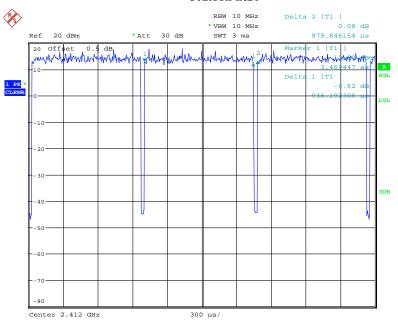
802.11g



Date: 1.JAN.2018 16:35:10

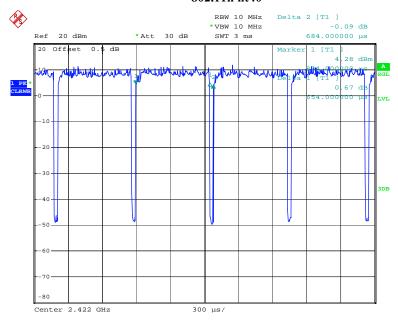
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802.11n ht20



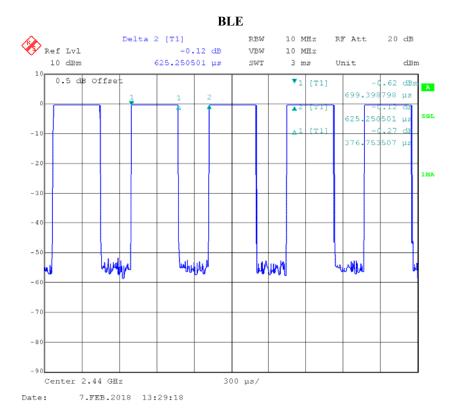
Date: 12.FEB.2018 15:46:59

802.11n ht40



Date: 1.JAN.2018 16:25:28

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Equipment Modifications

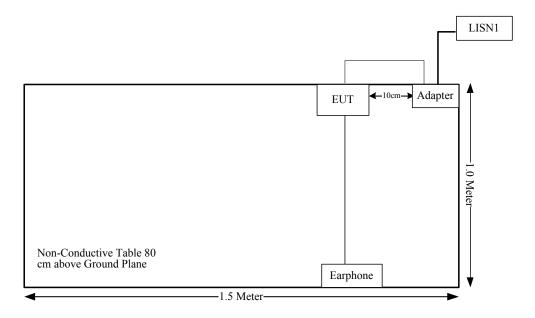
No modification was made to the EUT.

Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From	То
USB Cable	No	No	1.2	EUT	Adapter
Earphone Cable	No	No	1.2	EUT	Earphone

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Block Diagram of Test Setup



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SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC §15.247 (i) & §1.1310 & §2.1093	RF Exposure	Compliance
§15.203	Antenna Requirement	Compliance
§15.207 (a)	AC Line Conducted Emissions	Compliance
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliance
§15.247 (a)(2)	6 dB Bandwidth	Compliance
§15.247(b)(3)	Maximum Conducted Output Power	Compliance
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliance
§15.247(e)	Power Spectral Density	Compliance

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FCC §15.247 (i) & §1.1310 & §2.1093- RF EXPOSURE

Applicable Standard

According to §15.247(i) and §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

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According to KDB447498 D01 General RF Exposure Guidance v06:

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances \leq 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance,

mm)] $\cdot [\sqrt{f(GHz)}] \le 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is ≤ 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

Measurement Result

For Bluetooth LE mode:

The max conducted power including tune-up tolerance is 4.2 dBm (2.63 mW). [(max. power of channel, mW)/(min. test separation distance, mm)][$\sqrt{f(GHz)}$] = 2.63/5*($\sqrt{2.480}$) = 0.8< 3.0

For WLAN mode:

The max conducted power including tune-up tolerance is 9.4 dBm (8.71 mW). [(max. power of channel, mW)/(min. test separation distance, mm)][$\sqrt{f(GHz)}$] = 8.71/5*($\sqrt{2}$.462) = 2.7< 3.0

So the stand-alone SAR evaluation is not necessary.

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FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

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- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

Antenna Connector Construction

The EUT has one internal antenna arrangement for BT and WIFI, and the antenna gain is -5.5 dBi, fulfill the requirement of this section. Please refer to the EUT photos.

Result: Compliance.

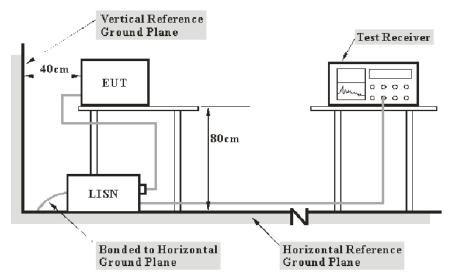
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FCC §15.207 (a)-AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC§15.207(a)

EUT Setup



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Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207.

The spacing between the peripherals was 10 cm.

The adapter was connected to the main LISN with a 120 V/60 Hz AC power source.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W	
150 kHz – 30 MHz	9 kHz	

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Test Procedure

During the conducted emission test, the adapter was connected to the first LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

$$V_C = V_R + A_C + VDF$$
$$C_f = A_C + VDF$$

Herein,

V_C (cord. Reading): corrected voltage amplitude

V_R: reading voltage amplitude A_c: attenuation caused by cable loss VDF: voltage division factor of AMN

C_f: Correction Factor

The "Margin" column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

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Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCS 30	830245/006	2017-12-11	2018-12-11
R&S	Two-line V-network	ENV 216	101614	2017-12-08	2018-12-08
R&S	L.I.S.N	ESH2-Z5	892107/021	2017-09-25	2018-09-25
N/A	Coaxial Cable	C-NJNJ-50	C-0200-01	2017-09-05	2018-09-05
R&S	Test Software	EMC32	Version8.53.0	N/A	N/A

^{*} Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

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Test Data

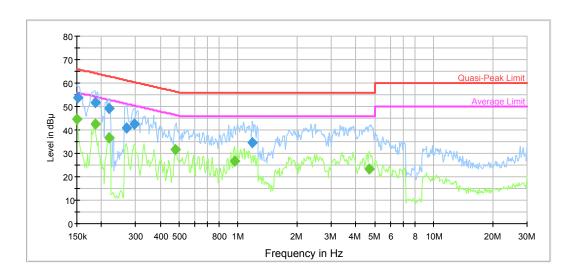
Environmental Conditions

Temperature:	25.3 °C
Relative Humidity:	39 %
ATM Pressure:	101.1 kPa

The testing was performed by Jim Zhang on 2018-01-03.

Test Mode: Transmitting

AC120 V, 60 Hz, Line:



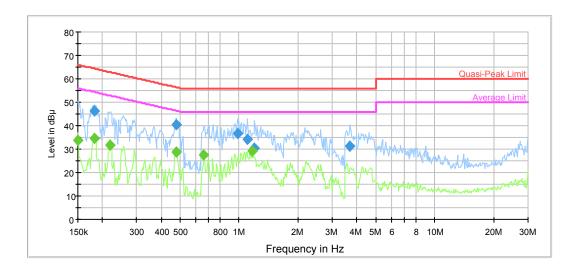
Report No.: RDG171228009-00C

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment	
0.151200	53.9	9.000	L1	11.2	12.0	65.9	Compliance	
0.186006	51.8	9.000	L1	10.8	12.4	64.2	Compliance	
0.219886	49.0	9.000	L1	10.5	13.8	62.8	Compliance	
0.268355	40.9	9.000	L1	10.3	20.3	61.2	Compliance	
0.295282	42.6	9.000	L1	10.2	17.8	60.4	Compliance	
1.181325	34.8	9.000	L1	9.8	21.2	56.0	Compliance	

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment	
0.150000	44.6	9.000	L1	11.2	11.4	56.0	Compliance	
0.186006	42.7	9.000	L1	10.8	11.5	54.2	Compliance	
0.218141	36.6	9.000	L1	10.5	16.3	52.9	Compliance	
0.480097	31.5	9.000	L1	9.9	14.8	46.3	Compliance	
0.960275	26.8	9.000	L1	9.8	19.2	46.0	Compliance	
4.688581	23.2	9.000	L1	9.8	22.8	46.0	Compliance	

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AC120 V, 60 Hz, Neutral:



Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment	
0.183065	46.3	9.000	N	10.8	18.0	64.3	Compliance	
0.476287	40.2	9.000	N	9.9	16.2	56.4	Compliance	
0.983506	36.5	9.000	N	9.8	19.5	56.0	Compliance	
1.108371	34.0	9.000	N	9.8	22.0	56.0	Compliance	
1.200302	30.5	9.000	N	9.8	25.5	56.0	Compliance	
3.691692	31.1	9.000	N	9.8	24.9	56.0	Compliance	

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment	
0.150000	33.6	9.000	N	11.2	22.4	56.0	Compliance	
0.183065	34.7	9.000	N	10.8	19.6	54.3	Compliance	
0.219886	31.6	9.000	N	10.5	21.3	52.8	Compliance	
0.480097	28.6	9.000	N	9.9	17.8	46.3	Compliance	
0.660314	27.4	9.000	N	9.8	18.6	46.0	Compliance	
1.162648	29.3	9.000	N	9.8	16.7	46.0	Compliance	

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FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS

Applicable Standard

FCC §15.247 (d); §15.209; §15.205;

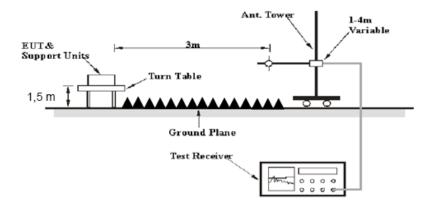
EUT Setup

Below 1GHz:



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Above 1GHz:



The radiated emission Below 1GHz tests were performed in the 10 meters chamber test site, above 1GHz tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

The spacing between the peripherals was 10 cm.

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EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

30MHz-1000MHz:

Measurement	RBW	Video B/W	IF B/W		
QP	120 kHz	300 kHz	120kHz		

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1GHz-25GHz:

Measurement	Duty cycle	RBW	Video B/W	
PK	Any	1MHz	3 MHz	
AXZ	>98%	1MHz	10 Hz	
AV	<98%	1MHz	1/T	

Note: T is minimum transmission duration

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1 GHz, peak and Average detection modes for frequencies above 1 GHz.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

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Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCI	100035	2017-08-04	2018-08-04
Sunol Sciences	Antenna	JB3	A060611-3	2017-07-21	2019-07-21
HP	Amplifier	8447F	2443A01912	2017-09-05	2018-09-05
R&S	Spectrum Analyzer	FSEM	831259/019	2017-07-18	2018-07-18
TDK RF	Horn Antenna	HRN-0118	130 084	2016-01-05	2019-01-04
N/A	Coaxial Cable	C-2.4J2.4J-50	C-0700-01	2017-06-27	2018-06-27
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2017-09-05	2018-09-05
Quinstar	Amplifier	QLW-18405536-JO	15964001001	2017-06-27	2018-06-27
Ducommun Technolagies	Horn Antenna	ARH-4223-02	1007726-01 1304	2016-11-18	2019-11-18
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2017-09-05	2018-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2017-09-05	2018-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2017-09-05	2018-09-05
Unknown	Coaxial Cable	C-SJSJ-50	C-0800-01	2017-09-05	2018-09-05
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
Chengdu Ouli	Band Rejection Filter	2400-2483.5	002	2017-09-05	2018-09-05

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Test Data

Environmental Conditions

Temperature:	21.1~21.3 °C
Relative Humidity:	29~36 %
ATM Pressure:	101.3~102 kPa

^{*} The testing was performed by Blake Yang & Eric Xiao from 2018-02-02 to 2018-02-05.

Test Result: Compliance, please Refer to the following data

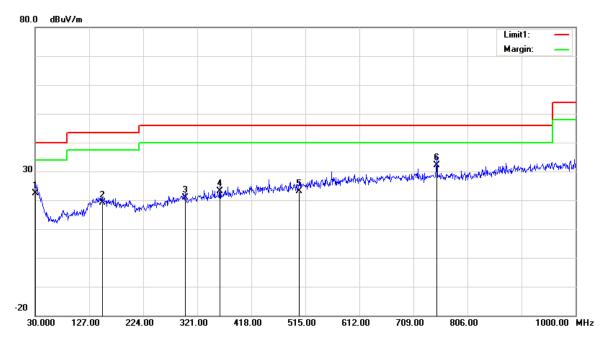
Test Mode: Transmitting

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^{*} Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

1) 30MHz-1GHz (Wifi 802.11b mode Low channel was the worst):

Horizontal:

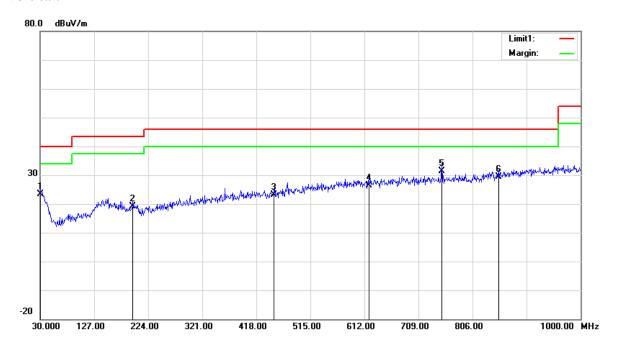


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Frequency (MHz)	Receiver Reading (dBuV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
30.0000	24.12	QP	-1.82	22.30	40.00	17.70
150.2800	25.87	QP	-6.67	19.20	43.50	24.30
299.6600	25.42	QP	-4.62	20.80	46.00	25.20
361.7400	26.23	QP	-3.13	23.10	46.00	22.90
504.3300	22.61	QP	0.49	23.10	46.00	22.90
750.7100	26.54	QP	5.56	32.10	46.00	13.90

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Vertical:



Frequency (MHz)	Receiver Reading (dBuV)	Detector	Correction Factor (dB/m)	Factor Amp. (dBuV/m)		Margin (dB)
30.0000	25.12	QP	-1.82	23.30	40.00	16.70
195.8700	26.22	QP	-7.02	19.20	43.50	24.30
450.0100	24.18	QP	-1.08	23.10	46.00	22.90
619.7600	22.98	QP	3.32	26.30	46.00	19.70
750.7100	25.74	QP	5.56	31.30	46.00	14.70
852.5600	22.47	QP	7.03	29.50	46.00	16.50

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2) 1-25GHz:

802.11b Mode:

Б	Re	ceiver	Rx A	ntenna	Cable	Amplifier	Corrected	T,	34			
Frequency (MHz)	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)	loss (dB)	Gain (dB)	Amplitude (dBµV/m)	Limit (dBμV/m)	Margin (dB)			
	Low Channel: 2412 MHz											
2412.00	53.50	PK	Н	24.84	5.41	0.00	83.75	N/A	N/A			
2412.00	48.26	AV	Н	24.84	5.41	0.00	78.51	N/A	N/A			
2412.00	57.68	PK	V	24.84	5.41	0.00	87.93	N/A	N/A			
2412.00	53.46	AV	V	24.84	5.41	0.00	83.71	N/A	N/A			
2390.00	23.19	PK	V	24.80	5.36	0.00	53.35	74.00	20.65			
2390.00	14.02	AV	V	24.80	5.36	0.00	44.18	54.00	9.82			
4824.00	44.95	PK	V	29.75	7.34	27.41	54.63	74.00	19.37			
4824.00	41.89	AV	V	29.75	7.34	27.41	51.57	54.00	2.43			
7236.00	38.16	PK	V	33.98	9.08	27.22	54.00	74.00	20.00			
7236.00	23.15	AV	V	33.98	9.08	27.22	38.99	54.00	15.01			
			Mic	ldle Chann	el: 2437 l	MHz						
2437.00	53.86	PK	Н	24.89	5.41	0.00	84.16	N/A	N/A			
2437.00	48.96	AV	Н	24.89	5.41	0.00	79.26	N/A	N/A			
2437.00	57.24	PK	V	24.89	5.41	0.00	87.54	N/A	N/A			
2437.00	52.31	AV	V	24.89	5.41	0.00	82.61	N/A	N/A			
4874.00	45.13	PK	V	29.85	7.56	27.54	55.00	74.00	19.00			
4874.00	41.63	AV	V	29.85	7.56	27.54	51.50	54.00	2.50			
7311.00	37.15	PK	V	34.10	9.33	27.28	53.30	74.00	20.70			
7311.00	23.01	AV	V	34.10	9.33	27.28	39.16	54.00	14.84			
				gh Channe	1: 2462 M							
2462.00	54.06	PK	Н	24.93	5.41	0.00	84.40	N/A	N/A			
2462.00	49.36	AV	Н	24.93	5.41	0.00	79.70	N/A	N/A			
2462.00	57.69	PK	V	24.93	5.41	0.00	88.03	N/A	N/A			
2462.00	52.16	AV	V	24.93	5.41	0.00	82.50	N/A	N/A			
2483.50	26.31	PK	V	24.97	5.41	0.00	56.69	74.00	17.31			
2483.50	14.30	AV	V	24.97	5.41	0.00	44.68	54.00	9.32			
4924.00	44.03	PK	V	29.95	7.65	27.51	54.12	74.00	19.88			
4924.00	40.36	AV	V	29.95	7.65	27.51	50.45	54.00	3.55			
7386.00	37.12	PK	V	34.22	9.08	27.18	53.24	74.00	20.76			
7386.00	23.04	AV	V	34.22	9.08	27.18	39.16	54.00	14.84			

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802.11g N	802.11g Mode:										
Frequency	Re	ceiver	Rx A	ntenna	Cable	Amplifier	Corrected	Limit	Margin		
(MHz)	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)	loss (dB)	Gain (dB)	Amplitude (dBμV/m)	(dBµV/m)	(dB)		
Low Channel: 2412 MHz											
2412.00	58.03	PK	Н	24.84	5.41	0.00	88.28	N/A	N/A		
2412.00	48.01	AV	Н	24.84	5.41	0.00	78.26	N/A	N/A		
2412.00	61.66	PK	V	24.84	5.41	0.00	91.91	N/A	N/A		
2412.00	52.14	AV	V	24.84	5.41	0.00	82.39	N/A	N/A		
2390.00	24.95	PK	V	24.80	5.36	0.00	55.11	74.00	18.89		
2390.00	14.10	AV	V	24.80	5.36	0.00	44.26	54.00	9.74		
4824.00	54.09	PK	V	29.75	7.34	27.41	63.77	74.00	10.23		
4824.00	38.95	AV	V	29.75	7.34	27.41	48.63	54.00	5.37		
7236.00	37.55	PK	V	33.98	9.08	27.22	53.39	74.00	20.61		
7236.00	23.61	AV	V	33.98	9.08	27.22	39.45	54.00	14.55		
			Mic	ldle Chann	el: 2437 l	MHz					
2437.00	55.98	PK	Н	24.89	5.41	0.00	86.28	N/A	N/A		
2437.00	46.92	AV	Н	24.89	5.41	0.00	77.22	N/A	N/A		
2437.00	60.84	PK	V	24.89	5.41	0.00	91.14	N/A	N/A		
2437.00	50.42	AV	V	24.89	5.41	0.00	80.72	N/A	N/A		
4874.00	54.74	PK	V	29.85	7.56	27.54	64.61	74.00	9.39		
4874.00	38.22	AV	V	29.85	7.56	27.54	48.09	54.00	5.91		
7311.00	38.15	PK	V	34.10	9.33	27.28	54.30	74.00	19.70		
7311.00	23.05	AV	V	34.10	9.33	27.28	39.20	54.00	14.80		
			Hi	gh Channe	el: 2462 N	ПНz					
2462.00	57.01	PK	Н	24.93	5.41	0.00	87.35	N/A	N/A		
2462.00	46.84	AV	Н	24.93	5.41	0.00	77.18	N/A	N/A		
2462.00	62.02	PK	V	24.93	5.41	0.00	92.36	N/A	N/A		
2462.00	51.77	AV	V	24.93	5.41	0.00	82.11	N/A	N/A		
2483.50	33.78	PK	V	24.97	5.41	0.00	64.16	74.00	9.84		
2483.50	15.56	AV	V	24.97	5.41	0.00	45.94	54.00	8.06		
4924.00	54.36	PK	V	29.95	7.65	27.51	64.45	74.00	9.55		
4924.00	39.08	AV	V	29.95	7.65	27.51	49.17	54.00	4.83		
7386.00	38.30	PK	V	34.22	9.08	27.18	54.42	74.00	19.58		
7386.00	23.31	AV	V	34.22	9.08	27.18	39.43	54.00	14.57		

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802 11n ht20 Mode:

802.11n ht20 Mode:										
Engguener	Receiver		Rx Antenna		Cable	Amplifier	Corrected	Limit	Mangin	
Frequency (MHz)	Reading	D 4 4	Polar	Factor	loss	Gain	Amplitude	(dBµV/m)	Margin	
(MHZ)	(dBµV)	Detector	(H/V)	(dB/m)	(dB)	(dB)	(dBµV/m)	(иБµ v/III)	(dB)	
Low Channel: 2412 MHz										
2412.00	55.88	PK	Н	24.84	5.41	0.00	86.13	N/A	N/A	
2412.00	46.25	AV	Н	24.84	5.41	0.00	76.50	N/A	N/A	
2412.00	61.42	PK	V	24.84	5.41	0.00	91.67	N/A	N/A	
2412.00	50.84	AV	V	24.84	5.41	0.00	81.09	N/A	N/A	
2390.00	24.95	PK	V	24.80	5.36	0.00	55.11	74.00	18.89	
2390.00	14.41	AV	V	24.80	5.36	0.00	44.57	54.00	9.43	
4824.00	54.28	PK	V	29.75	7.34	27.41	63.96	74.00	10.04	
4824.00	39.58	AV	V	29.75	7.34	27.41	49.26	54.00	4.74	
7236.00	38.16	PK	V	33.98	9.08	27.22	54.00	74.00	20.00	
7236.00	24.31	AV	V	33.98	9.08	27.22	40.15	54.00	13.85	
			Mic	ldle Chann	el: 2437 l	MHz		•	•	
2437.00	56.86	PK	Н	24.89	5.41	0.00	87.16	N/A	N/A	
2437.00	46.89	AV	Н	24.89	5.41	0.00	77.19	N/A	N/A	
2437.00	61.39	PK	V	24.89	5.41	0.00	91.69	N/A	N/A	
2437.00	51.19	AV	V	24.89	5.41	0.00	81.49	N/A	N/A	
4874.00	54.32	PK	V	29.85	7.56	27.54	64.19	74.00	9.81	
4874.00	40.15	AV	V	29.85	7.56	27.54	50.02	54.00	3.98	
7311.00	37.68	PK	V	34.10	9.33	27.28	53.83	74.00	20.17	
7311.00	23.68	AV	V	34.10	9.33	27.28	39.83	54.00	14.17	
			Hi	gh Channe	l: 2462 M	ПНz				
2462.00	57.41	PK	Н	24.93	5.41	0.00	87.75	N/A	N/A	
2462.00	43.75	AV	Н	24.93	5.41	0.00	74.09	N/A	N/A	
2462.00	61.06	PK	V	24.93	5.41	0.00	91.40	N/A	N/A	
2462.00	50.80	AV	V	24.93	5.41	0.00	81.14	N/A	N/A	
2483.50	25.75	PK	V	24.97	5.41	0.00	56.13	74.00	17.87	
2483.50	14.31	AV	V	24.97	5.41	0.00	44.69	54.00	9.31	
4924.00	53.96	PK	V	29.95	7.65	27.51	64.05	74.00	9.95	
4924.00	38.41	AV	V	29.95	7.65	27.51	48.50	54.00	5.50	
7386.00	38.26	PK	V	34.22	9.08	27.18	54.38	74.00	19.62	
7386.00	23.17	AV	V	34.22	9.08	27.18	39.29	54.00	14.71	

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802.11n ht40 Mode:

-	Receiver		Rx A	ntenna	Cable	Amplifier	Corrected	T	3.5	
Frequency (MHz)	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)	loss (dB)	Gain (dB)	Amplitude (dBµV/m)	Limit (dBμV/m)	Margin (dB)	
Low Channel: 2422 MHz										
2422.00	53.47	PK	Н	24.86	5.41	0.00	83.74	N/A	N/A	
2422.00	42.75	AV	Н	24.86	5.41	0.00	73.02	N/A	N/A	
2422.00	59.82	PK	V	24.86	5.41	0.00	90.09	N/A	N/A	
2422.00	49.30	AV	V	24.86	5.41	0.00	79.57	N/A	N/A	
2390.00	26.97	PK	V	24.80	5.36	0.00	57.13	74.00	16.87	
2390.00	14.38	AV	V	24.80	5.36	0.00	44.54	54.00	9.46	
4844.00	52.96	PK	V	29.79	7.42	27.46	62.71	74.00	11.29	
4844.00	38.24	AV	V	29.79	7.42	27.46	47.99	54.00	6.01	
7266.00	38.15	PK	V	34.03	9.21	27.25	54.14	74.00	19.86	
7266.00	23.15	AV	V	34.03	9.21	27.25	39.14	54.00	14.86	
			Mic	ldle Chann	el: 2437 l	MHz				
2437.00	54.62	PK	Н	24.89	5.41	0.00	84.92	N/A	N/A	
2437.00	44.86	AV	Н	24.89	5.41	0.00	75.16	N/A	N/A	
2437.00	60.38	PK	V	24.89	5.41	0.00	90.68	N/A	N/A	
2437.00	49.92	AV	V	24.89	5.41	0.00	80.22	N/A	N/A	
4874.00	55.31	PK	V	29.85	7.56	27.54	65.18	74.00	8.82	
4874.00	40.37	AV	V	29.85	7.56	27.54	50.24	54.00	3.76	
7311.00	37.51	PK	V	34.10	9.33	27.28	53.66	74.00	20.34	
7311.00	22.96	AV	V	34.10	9.33	27.28	39.11	54.00	14.89	
			Hi	gh Channe	1: 2452 M	IHz				
2452.00	57.41	PK	Н	24.91	5.41	0.00	87.73	N/A	N/A	
2452.00	43.75	AV	Н	24.91	5.41	0.00	74.07	N/A	N/A	
2452.00	61.06	PK	V	24.91	5.41	0.00	91.38	N/A	N/A	
2452.00	50.80	AV	V	24.91	5.41	0.00	81.12	N/A	N/A	
2483.50	25.75	PK	V	24.97	5.41	0.00	56.13	74.00	17.87	
2483.50	14.32	AV	V	24.97	5.41	0.00	44.70	54.00	9.30	
4904.00	52.36	PK	V	29.91	7.67	27.58	62.36	74.00	11.64	
4904.00	37.41	AV	V	29.91	7.67	27.58	47.41	54.00	6.59	
7356.00	37.62	PK	V	34.17	9.18	27.18	53.79	74.00	20.21	
7356.00	22.51	AV	V	34.17	9.18	27.22	38.64	54.00	15.36	

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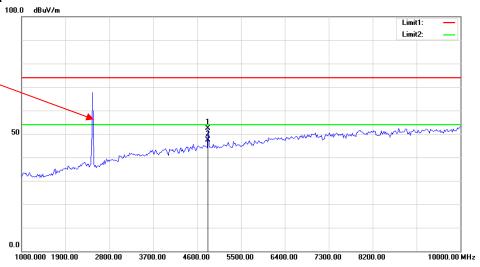
BLE Mode

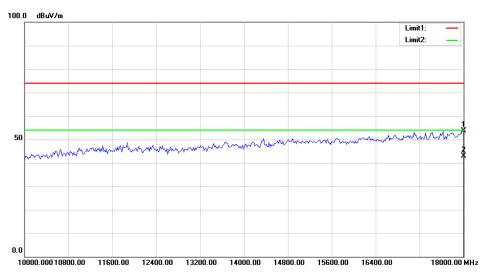
BLE Mode	P	- :	Rx Antenna		~				
Frequency		eiver		ntenna	Cable	Amplifier	Corrected	Limit	Margin
(MHz)	Reading	Detector	Polar	Factor	loss	Gain	Amplitude	(dBµV/m)	(dB)
, ,	(dBµV)	2000001	(H/V)	(dB/m)	(dB)	(dB)	(dBµV/m)	• '	
Low Channel: 2402 MHz									
2402.00	54.03	PK	Н	24.82	5.41	0.00	84.26	N/A	N/A
2402.00	48.86	AV	Н	24.82	5.41	0.00	79.09	N/A	N/A
2402.00	57.71	PK	V	24.82	5.41	0.00	87.94	N/A	N/A
2402.00	51.29	AV	V	24.82	5.41	0.00	81.52	N/A	N/A
2390.00	23.67	PK	V	24.80	5.36	0.00	53.83	74.00	20.17
2390.00	10.87	AV	V	24.80	5.36	0.00	41.03	54.00	12.97
4804.00	43.21	PK	V	29.71	7.25	27.36	52.81	74.00	21.19
4804.00	34.42	AV	V	29.71	7.25	27.36	44.02	54.00	9.98
7206.00	42.18	PK	V	33.93	8.94	27.19	57.86	74.00	16.14
7206.00	33.54	AV	V	33.93	8.94	27.19	49.22	54.00	4.78
			Mi	iddle Chan					
2440.00	54.81	PK	Н	24.89	5.41	0.00	85.11	N/A	N/A
2440.00	49.24	AV	Н	24.89	5.41	0.00	79.54	N/A	N/A
2440.00	58.93	PK	V	24.89	5.41	0.00	89.23	N/A	N/A
2440.00	52.61	AV	V	24.89	5.41	0.00	82.91	N/A	N/A
4880.00	43.67	PK	V	29.86	7.58	27.55	53.56	74.00	20.44
4880.00	34.85	AV	V	29.86	7.58	27.55	44.74	54.00	9.26
7320.00	42.52	PK	V	34.11	9.30	27.26	58.67	74.00	15.33
7320.00	33.73	AV	V	34.11	9.30	27.26	49.88	54.00	4.12
				igh Chann					
2480.00	55.36	PK	Н	24.96	5.41	0.00	85.73	N/A	N/A
2480.00	49.69	AV	Н	24.96	5.41	0.00	80.06	N/A	N/A
2480.00	59.79	PK	V	24.96	5.41	0.00	90.16	N/A	N/A
2480.00	53.51	AV	V	24.96	5.41	0.00	83.88	N/A	N/A
2483.50	23.62	PK	V	24.97	5.41	0.00	54.00	74.00	20.00
2483.50	13.68	AV	V	24.97	5.41	0.00	44.06	54.00	9.94
4960.00	43.78	PK	V	30.02	7.63	27.37	54.06	74.00	19.94
4960.00	34.66	AV	V	30.02	7.63	27.37	44.94	54.00	9.06
7440.00	41.25	PK	V	34.30	9.09	27.22	57.42	74.00	16.58
7440.00	32.64	AV	V	34.30	9.09	27.22	48.81	54.00	5.19

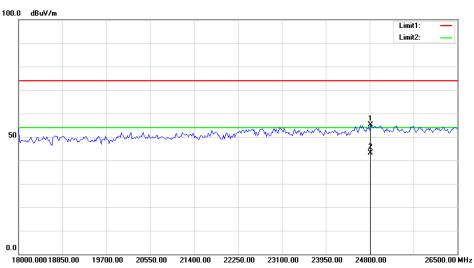
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Worst plots(802.11b Low channel) Horizontal





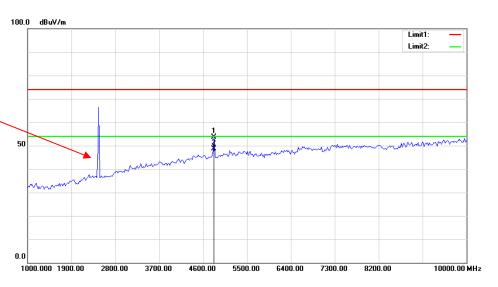


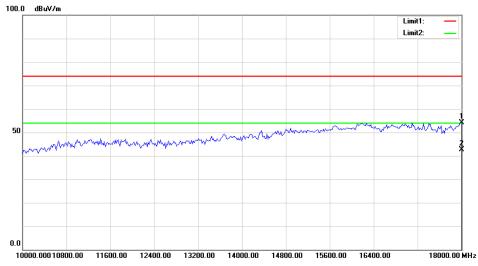


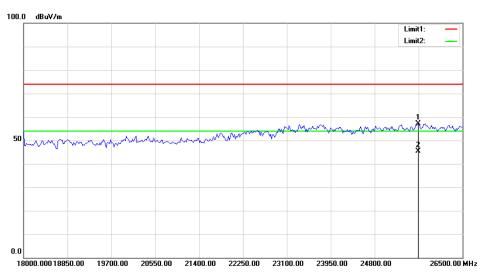
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Fundamental Test with Band Rejection Filter







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FCC §15.247(a) (2)-6 dB EMISSION BANDWIDTH

Applicable Standard

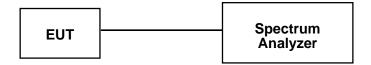
According to FCC §15.247(a) (2)

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Report No.: RDG171228009-00C

Test Procedure

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times RBW$.
- c) Detector = Peak.
- d) Trace mode = \max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2017-12-08	2018-12-08
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each Time	/

^{*} Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	24.1 °C
Relative Humidity:	42 %
ATM Pressure:	100.9 kPa

^{*} The testing was performed by Kami Zhou on 2018-01-01.

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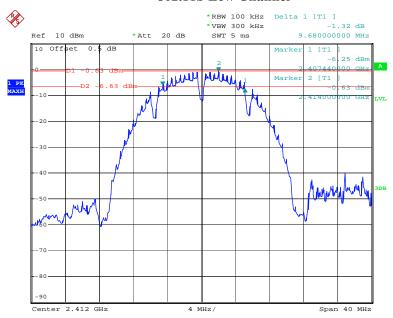
Test Mode: Transmitting

Test Result: Compliant. Please refer to the following table and plots.

Test mode	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)
	Low	2412	9.68	≥0.5
802.11b	Middle	2437	10.08	≥0.5
	High	2462	10.16	≥0.5
	Low	2412	16.4	≥0.5
802.11g	Middle	2437	16.4	≥0.5
	High	2462	16.4	≥0.5
	Low	2412	17.68	≥0.5
802.11n ht20	Middle	2437	17.6	≥0.5
	High	2462	17.68	≥0.5
	Low	2422	35.52	≥0.5
802.11n ht40	Middle	2437	35.52	≥0.5
	High	2452	35.36	≥0.5
BLE	Low	2402	0.72	≥0.5
	Middle	2440	0.71	≥0.5
	High	2480	0.71	≥0.5

Report No.: RDG171228009-00C

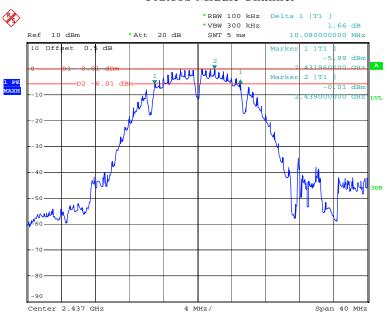
802.11b Low Channel



Date: 1.JAN.2018 15:48:18

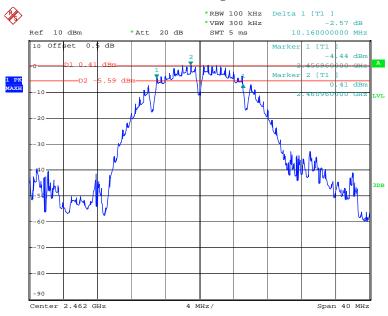
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802.11b Middle Channel



Date: 1.JAN.2018 15:50:44

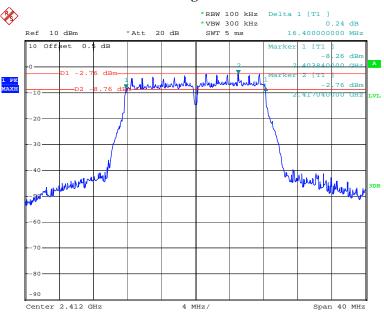
802.11b High Channel



Date: 1.JAN.2018 15:52:56

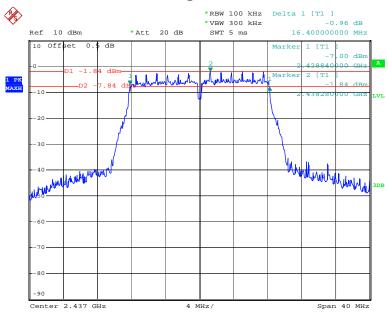
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802.11g Low Channel



Date: 1.JAN.2018 15:55:28

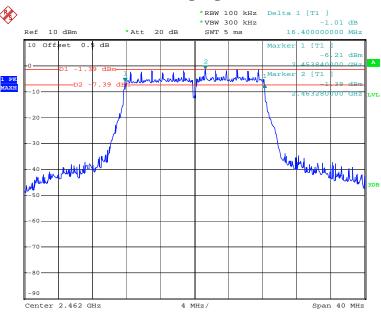
802.11g Middle Channel



Date: 1.JAN.2018 15:57:55

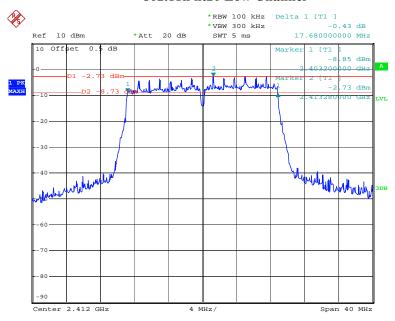
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802.11g High Channel



Date: 1.JAN.2018 16:00:36

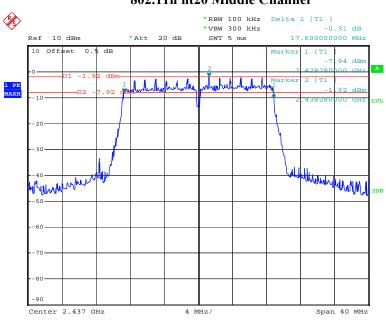
802.11n ht20 Low Channel



Date: 1.JAN.2018 16:03:03

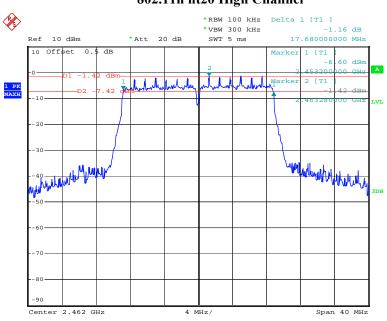
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802.11n ht20 Middle Channel



Date: 1.JAN.2018 16:05:28

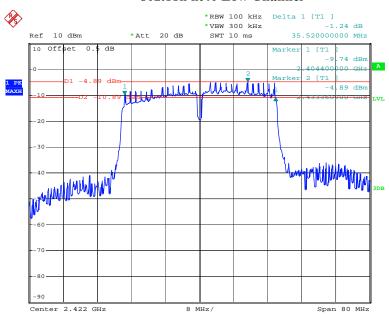
802.11n ht20 High Channel



Date: 1.JAN.2018 16:07:41

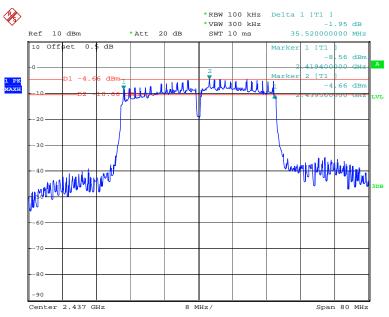
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802.11n ht40 Low Channel



Date: 1.JAN.2018 16:10:01

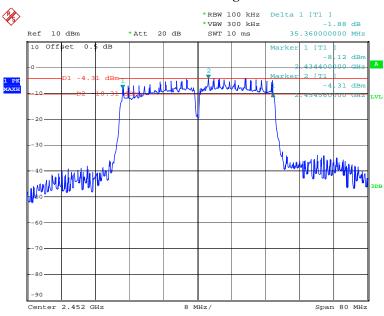
802.11n ht40 Middle Channel



Date: 1.JAN.2018 16:12:26

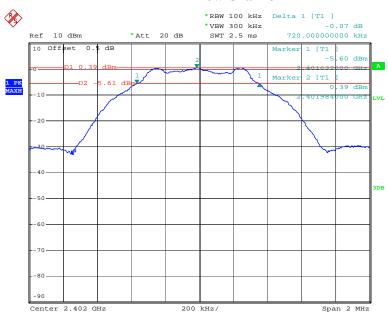
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802.11n ht40 High Channel



Date: 1.JAN.2018 16:14:42

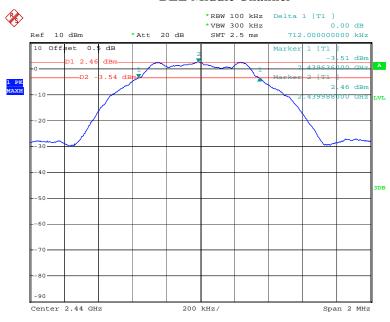
BLE Low Channel



Date: 1.JAN.2018 15:07:06

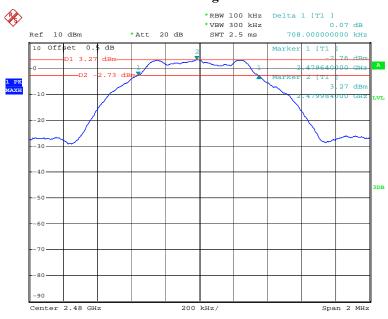
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BLE Middle Channel



Date: 1.JAN.2018 15:08:52

BLE High Channel



Date: 1.JAN.2018 15:10:07

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FCC §15.247(b) (3) - MAXIMUM PEAK CONDUCTED OUTPUT POWER

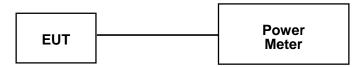
Report No.: RDG171228009-00C

Applicable Standard

According to FCC §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

Test Procedure

- 1. Place the EUT on a bench and set it in transmitting mode.
- 2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to test equipment.
- 3. Add a correction factor to the display.
- 4. Set the power Meter to test Peak output power, record the result as peak power.
- 5. Set the power meter to test average output power, record the result as average power.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	Wideband Power Sensor	N1921A	MY54210016	2017-11-03	2018-11-03
Agilent	P-Series Power Meter	N1912A	MY5000448	2017-11-03	2018-11-03
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each Time	/

^{*} Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

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Test Data

Environmental Conditions

Temperature:	24.1 °C	
Relative Humidity:	42 %	
ATM Pressure:	100.9 kPa	

^{*} The testing was performed by Kami Zhou on 2018-01-01.

Test Mode: Transmitting

Test Result: Compliant. Please refer to the following table.

Test mode	Channel	Frequency (MHz)	Max Peak Conducted Output Power (dBm)	Max Conducted Average Output Power (dBm)	Limit (dBm)
	Low	2412	10.94	9.27	30
802.11b	Middle	2437	11.72	9.18	30
	High	2462	12.23	9.13	30
	Low	2412	16.07	9.11	30
802.11g	Middle	2437	17.05	9.21	30
	High	2462	17.66	9.26	30
002.11	Low	2412	16.14	9.13	30
802.11n ht20	Middle	2437	17.03	9.2	30
11(20	High	2462	17.57	9.25	30
002.11	Low	2422	16.55	9.19	30
802.11n ht40	Middle	2437	17.23	9.1	30
	High	2452	17.34	9.18	30
BLE	Low	2402	1.15	/	30
	Middle	2440	3.22	/	30
	High	2480	4.02	/	30

Report No.: RDG171228009-00C

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FCC §15.247(d)– 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE

Report No.: RDG171228009-00C

Applicable Standard

According to FCC§15.247(d):In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Procedure

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
- 3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
- 4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
- 5. Repeat above procedures until all measured frequencies were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2017-12-08	2018-12-08
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each Time	/

^{*} Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

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Test Data

Environmental Conditions

Temperature:	24.1 °C
Relative Humidity:	42 %
ATM Pressure:	100.9 kPa

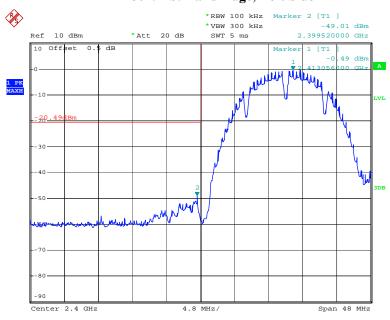
^{*} The testing was performed by Kami Zhou on 2018-01-01.

Test mode: Transmitting

Test Result: Compliant. Please refer to following plots.

802.11b: Band Edge, Left Side

Report No.: RDG171228009-00C

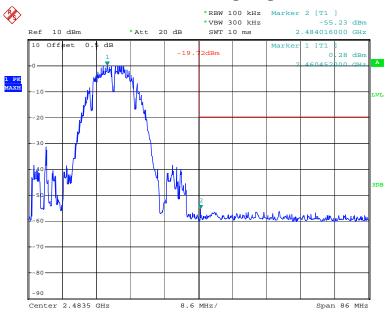


Date: 1.JAN.2018 15:50:01

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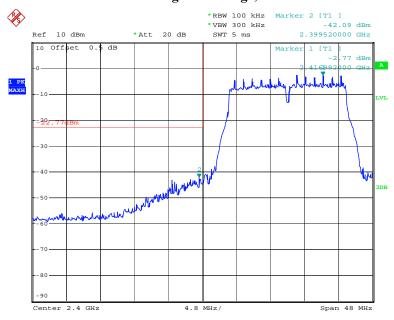
Report No.: RDG171228009-00C

802.11b: Band Edge, Right Side



Date: 1.JAN.2018 15:54:19

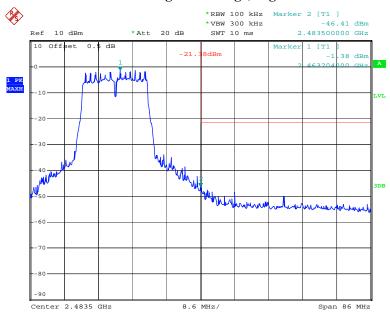
802.11g: Band Edge, Left Side



Date: 1.JAN.2018 15:57:13

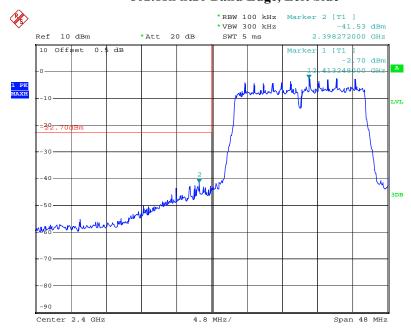
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802.11g: Band Edge, Right Side



Date: 1.JAN.2018 16:02:12

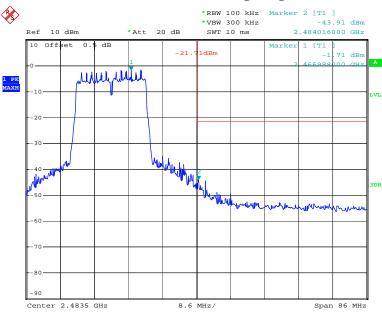
802.11n ht20 Band Edge, Left Side



Date: 1.JAN.2018 16:04:36

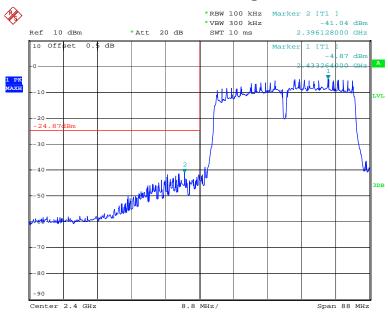
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802.11n ht20 Band Edge, Right Side



Date: 1.JAN.2018 16:09:18

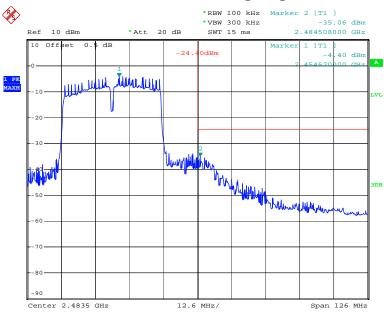
802.11n ht40 Band Edge, Left Side



Date: 1.JAN.2018 16:11:45

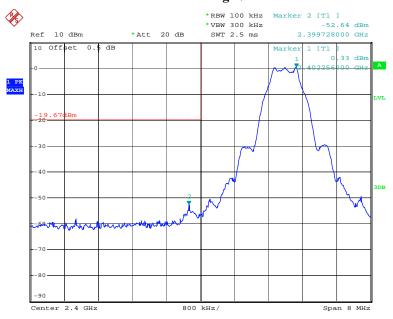
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802.11n ht40 Band Edge, Right Side



Date: 1.JAN.2018 16:16:27

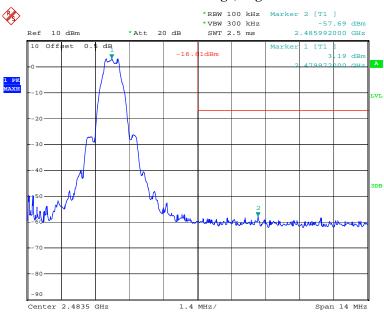
BLE Band Edge, Left Side



Date: 1.JAN.2018 15:08:04

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BLE Band Edge, Right Side



Date: 1.JAN.2018 15:11:04

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FCC §15.247(e) - POWER SPECTRAL DENSITY

Applicable Standard

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Report No.: RDG171228009-00C

Test Procedure

- 1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- 2. Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
- 3. Set the RBW = 3 kHz, VBW = 10 kHz, Set the span to 1.5 times the DTS bandwidth.
- 4. Use the peak marker function to determine the maximum amplitude level.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2017-12-08	2018-12-08
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	Each Time	/

^{*} Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	24.1 °C	
Relative Humidity:	42 %	
ATM Pressure:	100.9 kPa	

^{*} The testing was performed by Kami Zhou on 2018-01-01.

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Test Result: Compliance

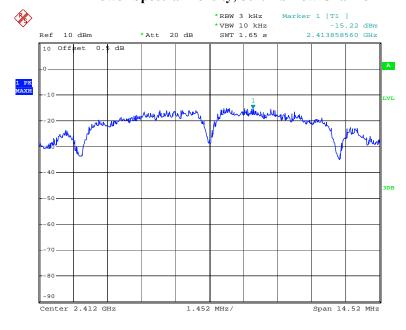
Test Mode: Transmitting

Test Result: Compliant. Please refer to the following table and plots

Test mode	Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)
	Low	2412	-15.22	≤8
802.11b	Middle	2437	-14.86	≤8
	High	2462	-14.23	≤8
	Low	2412	-16.1	≤8
802.11g	Middle	2437	-15.95	≤8
	High	2462	-16.25	≤8
	Low	2412	-17.19	≤8
802.11n ht20	Middle	2437	-16.97	≤8
	High	2462	-13.72	≤8
	Low	2422	-19.34	≤8
802.11n ht40	Middle	2437	-19.68	≤8
	High	2452	-19.29	≤8
BLE	Low	2402	-14.32	≤8
	Middle	2440	-12.21	≤8
	High	2480	-11.42	≤8

Report No.: RDG171228009-00C

Power Spectral Density, 802.11b Low Channel

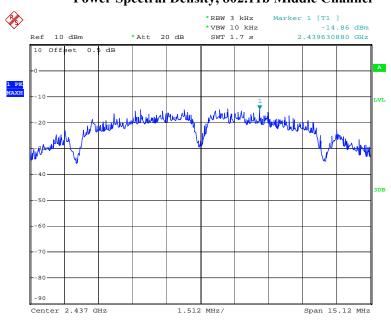


Date: 1.JAN.2018 16:44:56

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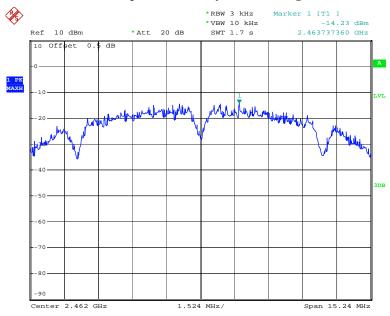
Power Spectral Density, 802.11b Middle Channel

Report No.: RDG171228009-00C



Date: 1.JAN.2018 15:51:31

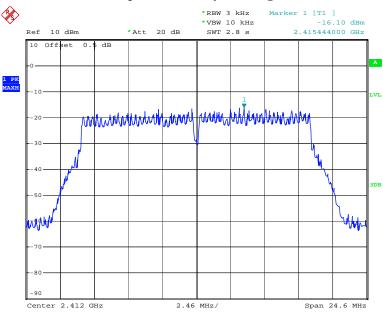
Power Spectral Density, 802.11b High Channel



Date: 1.JAN.2018 15:53:39

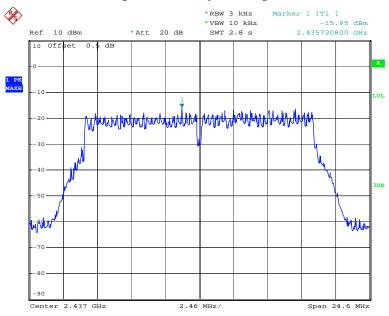
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Power Spectral Density, 802.11g Low Channel



Date: 1.JAN.2018 16:41:52

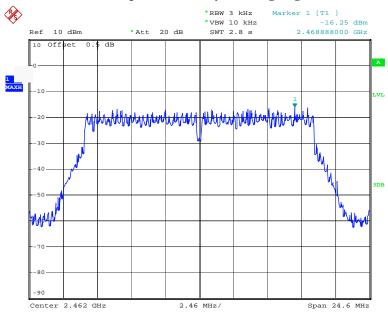
Power Spectral Density, 802.11g Middle Channel



Date: 1.JAN.2018 15:58:47

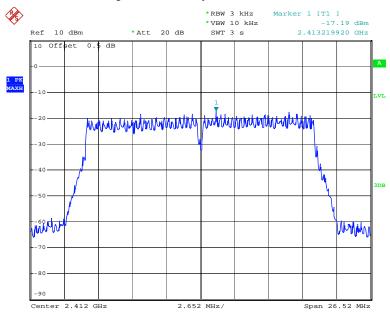
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Power Spectral Density, 802.11g High Channel



Date: 1.JAN.2018 16:01:21

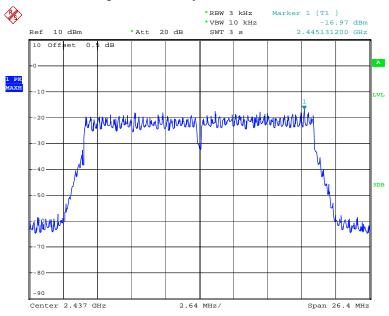
Power Spectral Density, 802.11n ht20 Low Channel



Date: 1.JAN.2018 16:03:54

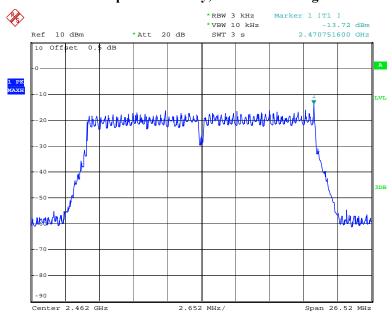
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Power Spectral Density, 802.11n ht20 Middle Channel



Date: 1.JAN.2018 16:06:14

Power Spectral Density, 802.11n ht20 High Channel

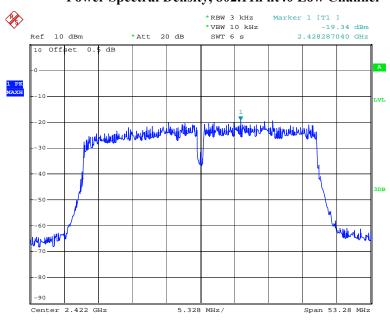


Date: 1.JAN.2018 16:08:41

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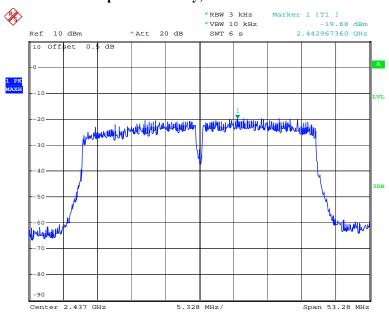
Power Spectral Density, 802.11n ht40 Low Channel

Report No.: RDG171228009-00C



Date: 1.JAN.2018 16:11:01

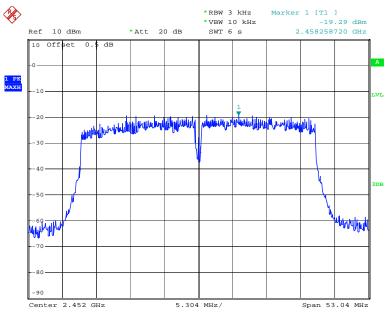
Power Spectral Density, 802.11n ht40 Middle Channel



Date: 1.JAN.2018 16:13:26

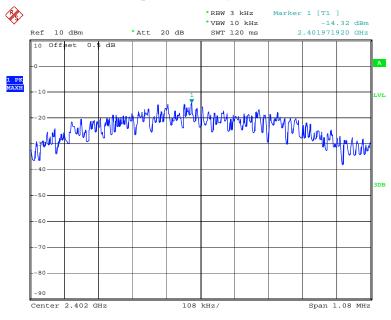
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Power Spectral Density, 802.11n ht40 High Channel



Date: 1.JAN.2018 16:15:41

Power Spectral Density, BLE Low Channel

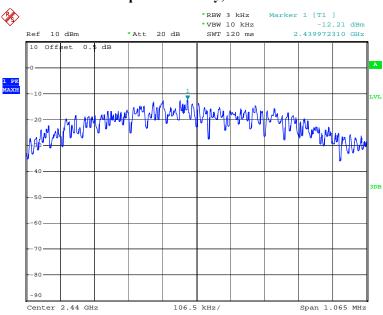


Date: 1.JAN.2018 15:07:45

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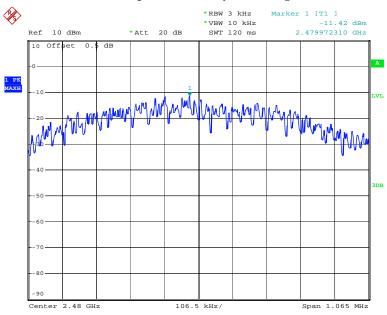
Power Spectral Density, BLE Middle Channel

Report No.: RDG171228009-00C



Date: 1.JAN.2018 15:09:29

Power Spectral Density, BLE High Channel



Date: 1.JAN.2018 15:10:44

***** END OF REPORT *****

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